

REMARKS/ARGUMENTS

Claim Status

Claims 44-46 and 48-72 are pending. Claim 44 is currently amended for grammatical and clarity purposes. Claims 1-43 and 47 are canceled. Claims 70-72 are added. New claim 70 finds support in claim 68. New claims 71 and 72 find support in claims 44 and 68. No new matter has been entered.

§103(a) Rejection

Claims 44-46 and 48-69 are rejected under 35 U.S.C. §103(a) as obvious in view of FR 1,344,883 (“*FR ‘883*”). Applicants respectfully traverse this rejection.

In addition to the remarks filed August 19, 2008, Applicants offer the following arguments with respect to the claimed monoimide compounds/compositions (see claims 53-70) and processes incorporating such monoimides (see claims 44-46, 48-52, 71 and 72) versus the naphthalimide compounds of *FR ‘883*.

The Office has asserted that *FR ‘883* “shows N-methyl-4-phenoxy-naphthalimide at pages 4 and 5” and “Formula 1 has the R1 that appears to read on the claimed compound” (Office Action dated May 19, 2008, page 2, para. 3).

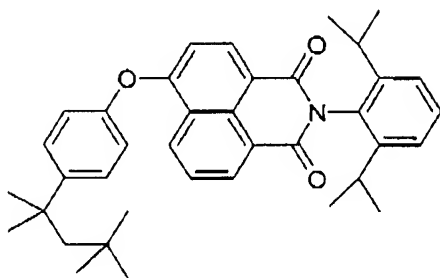
First, *FR ‘883*’s N-methyl-4-phenoxy-naphthalimide (Example 9) and N-phenyl-4-phenoxy-naphthalimide (Example 14) include an unsubstituted phenoxy group at the 4-position of the naphthalimide. In contrast, Applicants’ claimed naphthalene-1,8-dicarboxylic monoimides of formula I includes, at the 4-position of the naphthalimide, a cyano or -C(O)NR⁵R^{5a} or a phenoxy having one or more substituents as described in the claims. Clearly, unsubstituted phenoxy groups at the 4-position of the naphthalimide (i.e., *FR ‘883*, Examples 9 and 14) do not disclose or suggest a substituted phenoxy group at the 4-position of the naphthalimide as claimed by Applicants.

Furthermore, *FR* '883 is silent with respect to a cyano group or $-C(O)NR^5R^{5a}$ at the 4-position of the naphthalimide compounds. Accordingly, *FR* '883 does not disclose or suggest any naphthalimide compounds having groups at the 4-position that encompass or overlap those claimed (i.e., cyano or $-C(O)NR^5R^{5a}$ or a phenyloxy having one or more substituents). Therefore, *FR* '883 does not render obvious Applicants' compound/composition claims or Applicants' process claims using these compounds. See claims 53-70 for compound/composition claims; more specifically, see compound claims 68 and 70 wherein R^2 is cyano only (claim 70), or cyano or phenyloxy with 1-5 C_1-C_{12} alkyl groups (claim 68). See also claims 44-46, 48-52, 71 and 72 for process claims; more specifically, see process claims 71 and 72 wherein R^2 is cyano only (claim 72), or cyano or phenyloxy with 1-5 C_1-C_{12} alkyl groups (claim 71).

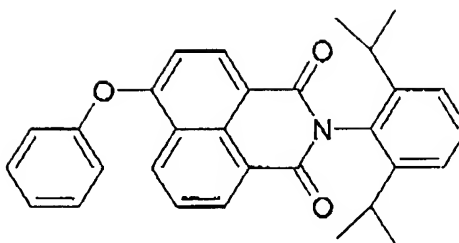
Secondly, even if one skilled in the art were to make the 4-phenoxy(unsubstituted)-naphthalimide compounds of *FR* '883 and, without the motivation to do so, add them to organic material, one would not obtain the increased thermal stability as achieved by the claimed compounds. See Declaration by Dr. Simon Schambony of BASF SE submitted herewith and discussed below.

Applicants have observed an increase in thermal stability for the claimed compounds as compared with the unsubstituted phenoxy compounds of *FR* '883. To this end, Applicants directly compared a compound within the scope of the claims ("I-C.1") versus a compound of *FR* '883 ("X"). These two compounds are identical with the exception that compound X of *FR* '883 is a 4-phenoxy(unsubstituted)-naphthalimide and Applicants' compound I-C.1 is a 4-phenoxy(substituted)-naphthalimide (shown below).

“I-C.1”



“X”



As can be seen by the data collected (Table 1 of the Declaration reproduced below), the thermal stability of compound X was low (loss of compound X totaling 17.3% after 25 minutes) while that of compound I-C.1 was high (loss of compound I-C.1 totaling 4.2% after 25 minutes).

Table 1

Time [min]	Loss of Compound I-C.1 [%]	Loss of Compound X [%]
0*)	0.5	1.6
5	1.2	4.7
10	2.0	7.9
15	2.7	11.0
20	3.5	14.2
25	4.2	17.3
*) measured just after reaching the final temperature		

Accordingly, 4-phenoxy-naphthalimide compounds not having any additional substituents on the 4-phenoxy moiety, like those of *FR* '883, have low thermal stability, while 4-phenoxy-naphthalimide compounds having at least one substituent on the 4-phenoxy moiety, like those encompassed by Applicants' claims, have high thermal stability.

Thus, not only does *FR* '883 not disclose or suggest Applicants' naphthalimide compounds having a cyano group or $-C(O)NR^5R^{5a}$ or a phenyloxy having one or more

substituents at the 4-position, but *FR* '883 also does not disclose or suggest that such compounds would have superior thermal stability.

Accordingly, *FR* '883 does not render obvious Applicants' claims. Applicants respectfully request withdrawal of this rejection.

Conclusion

For the reasons discussed above, Applicants submit that all now-pending claims are in condition for allowance, and Applicants respectfully request the withdrawal of the rejections and passage of this case to issue.


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